

AMENDMENTS TO THE CLAIMS

Claims 1-178 (cancelled).

179. (NEW) A method for transmitting data to selected remote devices, comprising the steps of:

transmitting data from an information source to a central broadcast server;

preprocessing said data at said central broadcast server, further comprising the step of:

5 parsing said data with parsers corresponding to said central broadcast server;

transmitting said data to an information gateway for building data blocks and assigning addresses to said data block;

transmitting said data blocks from said information gateway to a transmission gateway for preparing said data block for transmission to receivers;

10 transmitting preprocessed data to receivers communicating with said devices; and

instantaneously notifying said devices of receipt of said preprocessed data whether said computing devices are online or offline from a data channel associated with each device.

180. (NEW) The method claimed in claim 179, wherein said step of transmitting said data from said content manager to said information gateway for building data blocks and assigning addresses to said data block, further comprises the step of building data blocks and assigning addresses to said data block based on information in a subscriber database.

5 181. (NEW) The method claimed in claim 179, wherein said step of transmitting preprocessed data to the remote receivers communicating with said devices, further comprises the step of wirelessly transmitting said preprocessed data to the remote receivers.

182. (NEW) The method claimed in claim 181, wherein said step of wirelessly transmitting said preprocessed data to the remote receivers further comprises the step of transmitting said preprocessed data utilizing a paging network.

D3 183. (NEW) The method claimed in claim 181, wherein said step of wirelessly transmitting said preprocessed data to the remote receivers further comprises the step of transmitting said preprocessed data utilizing a Vertical Blanking Interval.

184. (NEW) The method claimed in claim 181, wherein said step of wirelessly transmitting said preprocessed data to the remote receivers further comprises the step of transmitting said preprocessed data utilizing a satellite system.

185. (NEW) The method claimed in claim 181, wherein said step of wirelessly transmitting said preprocessed data to the remote receivers further comprises the step of transmitting said preprocessed data utilizing an FM subcarrier, a digital carrier, an analog carrier, a cellular carrier, a GSM carrier or a PCS carrier.

5 186. (NEW) The method claimed in claim 179, wherein said step of transmitting preprocessed data to the remote receivers communicating with said computing devices, further comprises the step of transmitting said preprocessed data to the remote receivers by wired transmission.

5 187. (NEW) The method claimed in claim 179, wherein said step of preprocessing data at said central broadcast server, further comprises the step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to users of said devices an automatic connection back to said information source for obtaining further information related to said preprocessed data.

188. (NEW) The method claimed in claim 187, wherein said Internet address location is a Uniform Resource Locator.

189. (NEW) The method claimed in claim 187, wherein said step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to said users an automatic connection back to said information source for obtaining further information related to said preprocessed data, further comprises the step of providing an automatic

5 connection back to said information source through a user activating a single function on said device.

D3 190. (NEW) The method claimed in claim 189, wherein said single function comprises a single click on said device.

191. (NEW) The method claimed in claim 187, wherein said connection back to said information source for obtaining further information related to said preprocessed data is an automated wired connection.

192. (NEW) The method claimed in claim 187, wherein said connection back to said information source for obtaining further information related to said preprocessed data is an automated wireless connection.

193. (NEW) The method claimed in claim 187, wherein said step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to said users an automatic connection back to said information source for obtaining further information related to said preprocessed data, further comprises the step of determining at said central
5 broadcast server said Internet address location from said information source.

194. (NEW) The method claimed in claim 187, wherein said step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to said users an automatic connection back to said information source for obtaining further information related to said preprocessed data, further comprises the step of attaching said Internet address
5 location to said preprocessed data.

195. (NEW) The method claimed in claim 187, wherein said step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to said users an automatic connection back to said information source for obtaining further information related to said preprocessed data, further comprises the step of transmitting said Internet address
5 location with said preprocessed data to said device.

196. (NEW) The method claimed in claim 187, further comprising the step of extracting said Internet address location from said preprocessed data at said device.

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197. (NEW) The method claimed in claim 187, further comprising the step of displaying said Internet address location with said preprocessed data to said users such that said users can with a single action related to said Internet address location obtain additional information from said information source.

198. (NEW) The method claimed in claim 187, further comprising the step of launching an Internet browser and passing said Internet address location to said browser for automatic connection back to said information source.

199. (NEW) The method claimed in claim 187, wherein said Internet address is a proprietary on-line addressing scheme.

200. (NEW) The method claimed in claim 179 wherein said step of instantaneously notifying said devices of receipt of said preprocessed data whether said devices are online or offline from the data channel associated with each device, further comprises the step of providing at least one alert which when activated allows display of data.

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201. (NEW) The method claimed in claim 200, wherein said at least one alert comprises a visual alert.

202. (NEW) The method claimed in claim 200, wherein said at least one alert comprises an audio alert.

203. (NEW) The method claimed in claim 200, wherein said at least one alert is related to a type of information present at computing device.

204. (NEW) The method claimed in claim 179, wherein said step of instantaneously notifying said devices of receipt of said preprocessed data whether said devices are online or

offline from the data channel associated with each device, further comprises the step of providing an alert panel on a display of each of said devices for providing alerts to users of said devices.

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5 205. (NEW) The method claimed in claim 204, wherein said step of providing the alert panel on a display of said devices for providing alerts to said users, further comprises the step of displaying fly-in graphics and icon buttons to alert said users that new data has been received by said devices.

5 206. (NEW) The method claimed in claim 179, wherein said step of preprocessing said data at said central broadcast server further comprises the step of deriving redundant data packets for transmission to users of said devices.

207. (NEW) The method claimed in claim 206, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of parceling a data block into at least one incoming message.

208. (NEW) The method claimed in claim 207, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of parceling said messages into k information packets.

209. (NEW) The method claimed in claim 208, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of selecting a number of parity-check packets p.

210. (NEW) The method claimed in claim 209, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of encoding column-wise with a modified Reed-Solomon code for generating parity-check packets.

211. (NEW) The method claimed in claim 210, wherein said Reed-Solomon code is defined in accordance with:

P

$$g(x) = \prod_{I=1}^P (x + a^I)$$

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I=1.

D3 212. (NEW) The method claimed in claim 210, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of parceling said data packets into code words for transmission to said users.

213. (NEW) The method claimed in claim 212, wherein said step of deriving redundant data packets for transmission to said users further comprises the step of performing error correction and detection on said code words after said data packets have been parceled.

214. (NEW) The method claimed in claim 212, further comprising the step of assembling a data block from said code words.

215. (NEW) The method claimed in claim 214, wherein said step of assembling a data block from said code words further comprises the steps of:

counting the number of code words which have errors;

determining whether each packet has any errors;

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saving packets without error;

discarding packets with at least one error; and

assembling a message when the required number of packets has been received.

216. (NEW) The method claimed in claim 206, wherein said data packets include information packets and parity-check packets.

217. (NEW) The method claimed in claim 179, wherein said step of preprocessing said data at said central broadcast server further comprises the step of combining Huffman compression and dictionary-based compression based algorithms.

218. (NEW) The method claimed in claim 217, wherein said step of combining the Huffman compression and the dictionary-based compression based algorithms further comprises the steps of:

scanning input texts;
searching for next item previously seen text;
searching for next item in a static Huffman dictionary; and
choosing said search method which produces a better result for compression.

219. (NEW) The method claimed in claim 218, further comprising the step of decompressing said compressed data.

220. (NEW) The method claimed in claim 179, wherein said step of preprocessing said data at said central broadcast server further comprises the step of utilizing a differencing algorithm for compressing said coded data, thereby significantly reducing the number of bytes sent with each transmission.

221. (NEW) The method claimed in claim 179, wherein said step of preprocessing data at said central broadcast server, further comprises the step of processing data in accordance with feed type from said information source.

222. (NEW) The method claimed in claim 221, wherein said feed type comprises binary type feeds.

223. (NEW) The method claimed in claim 221, wherein said feed type comprises common user information type feeds.

224. (NEW) The method claimed in claim 221, wherein said feed type comprises feeds for modifying registry keys which control processing of data.

225. (NEW) The method claimed in claim 221, wherein said step of processing data in accordance with feed type from said information source, further comprises the step of using tags to differentiate types of information.

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5 226. (NEW) The method claimed in claim 179, wherein said step of instantaneously notifying said devices of receipt of said preprocessed data whether said devices are online or offline from the data channel associated with each device further comprises the step of instantaneously alerting said users to personal alerts through the use of sound, graphics, bit maps or video, wherein said user can instantaneously access information.

227. (NEW) The method claimed in claim 179, wherein said step of preprocessing data at said central broadcast server, further comprises the step of encoding said data with information relating to message parameters for filtering.

228. (NEW) The method claimed in claim 179, wherein said step of instantaneously notifying said devices of receipt of said preprocessed data whether said devices are online or offline from the data channel associated with each device, further comprises the steps of:
5 monitoring said transmissions utilizing multiple viewers;
filtering said transmitted preprocessed data;
post processing said preprocessed data; and
notifying said user instantaneously of receipt of filtered postprocessed data.

229. (NEW) The method claimed in claim 228, wherein said step of filtering said transmitted preprocessed data further comprises the step of filtering said transmitted preprocessed data in accordance with preferences set by said user.

230. (NEW) The method claimed in claim 229, wherein said step of filtering said transmitted preprocessed data in accordance with preferences set by said user, further comprises the step of setting said preferences with respect to sound, video and animation.

231. (NEW) The method claimed in claim 228, wherein said step of filtering said transmitted preprocessed data further comprises the step of filtering said preprocessed data in accordance with virtual addresses.

232. (NEW) The method claimed in claim 228, wherein said step of filtering said transmitted preprocessed data further comprises the step of filtering said preprocessed data in accordance with physical addresses.

D3 233. (NEW) The method claimed in claim 228, further comprising the step of controlling said viewers from said central broadcast server.

234. (NEW) The method claimed in claim 233, wherein said step of controlling said viewers from said central broadcast server, further comprises the step of adding viewers from said central broadcast server.

235. (NEW) The method claimed in claim 233, wherein said step of controlling said viewers from said central broadcast server, further comprises the step of removing viewers from said central broadcast server.

236. (NEW) The method claimed in claim 228, further comprising the step of utilizing a remote control interface for controlling said viewers.

237. (NEW) The method claimed in claim 236, wherein said step of utilizing a remote control interface for controlling said viewers further comprises the step of launching said remote control interface through a user interface alert panel.

238. (NEW) The method claimed in claim 228, further comprising the steps of:
storing entries in a viewer server connected to said viewer; and
providing filtering means for filtering particular types of messages a viewer can look at.

239. (NEW) The method claimed in claim 179, further comprising the step of activating said preprocessed data at a scheduled time.

240. (NEW) The method claimed in claim 179, further comprising the step of modifying said preprocessed data instantaneously and wirelessly.

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241. (NEW) The method claimed in claim 234, wherein said step of modifying said preprocessed data instantaneously and wirelessly, further comprises the step of activating services wirelessly through activation codes which enable or disable services.

242. (NEW) The method claimed in claim 179, further comprising the step of postprocessing said preprocessed data.

243. (NEW) The method claimed in claim 242, wherein said step of postprocessing said preprocessed data further comprises the step of recombining, decoding and decompressing said preprocessed data.

244. (NEW) The method claimed in claim 179, wherein said information source is an Internet access provider providing data feeds.

245. (NEW) The method claimed in claim 179, wherein said information source is an on-line service provider providing data feeds.

246. (NEW) The method claimed in claim 179, wherein said step of transmitting said data from said content manager to said information gateway for building data blocks and assigning addresses to said data block, further comprises the step of building data blocks and assigning addresses to said data block based on information in a subscriber database.

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247. (NEW) The method claimed in claim 179, further comprising the step of displaying contextual graphics on said device to show data in a predefined format.

248. (NEW) The method claimed in claim 247, wherein said predefined format is a scoreboard.

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249. (NEW) The method claimed in claim 179, wherein said step of preprocessing data at said central broadcast server, further comprises the step of attaching to said preprocessed data an Internet address location of said preprocessed data for providing to a user a message that causes a process or transaction on said device to occur.

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250. (NEW) The method claimed in claim 179, wherein said step of preprocessing said data at said central broadcast server, further comprises the step of sending said data on groups of pooled capcodes.

251. (NEW) The method claimed in claim 250, wherein said step of sending said data on groups of pooled capcodes, further comprises the step of multiplexing data over multiple capcodes to be reassembled at said user as if data were being sent over a single capcode.

252. The method claimed in claim 179, wherein said step of preprocessing said data at said central broadcast server, further comprises the steps of:

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assigning data packets to a group of capcodes;
transmitting said data over a paging network using said group of capcodes;
receiving packets at said user on said group of capcodes; and
combining said packets from group of capcodes into one data message.

253. (NEW) A method for transmitting data to selected remote devices, comprising the steps of:

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transmitting data from an information source to a central broadcast server;
preprocessing said data at said central broadcast server;
transmitting preprocessed data to remote receivers communicating with said devices;
instantaneously notifying said devices of receipt of said preprocessed data whether said devices are online or offline from a data channel associated with each device, further comprising the steps of:

10 monitoring said transmissions utilizing multiple viewers;
filtering said transmitted preprocessed data;
post processing said preprocessed data; and
notifying said user instantaneously of receipt of filtered postprocessed data; utilizing a
remote control interface for controlling said viewers.

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254. (NEW) The method claimed in claim 253, wherein said step of utilizing a remote control interface for controlling said viewers further comprises the step of launching said remote control interface through a user interface alert panel.

255. (NEW) The method claimed in claim 254, further comprising the steps of:
storing entries in a viewer server connected to said viewer; and
providing filtering means for filtering particular types of messages a viewer can look at.
